

Meningococcal Disease

(meningococcal meningitis, meningococcemia)

Disease Fact Sheet Series

What is meningococcal disease?

Meningococcal (me-ning'go-kok'al) disease includes meningococcal meningitis and meningococcemia (me-ning'go-kok-se'me-a). Meningitis is an inflammation of the meninges (me-nin'-jez), the tissues that cover the brain and spinal cord. Meningococcal meningitis is a severe form of meningitis caused by the bacterium *Neisseria meningitidis*. Meningococcemia is an infection of the blood with *Neisseria meningitidis*.

What are the symptoms?

The signs and symptoms of meningococcal disease can vary widely. Fever, headache, vomiting, stiff neck and a rash are common signs and symptoms of meningococcal meningitis. People with meningococcemia often develop a fever, rash, headache and weakness. A person may have either meningococcal meningitis or meningococcemia, or both at the same time.

How soon do the symptoms appear?

The symptoms may develop rapidly, sometimes in a matter of hours, but usually over several days. In some cases, death may occur within hours of the onset of symptoms. The symptoms may appear anytime between 2 and 10 days after *exposure*, usually within 3 to 4 days.

Who gets meningococcal disease?

Most people exposed to *Neisseria meningitidis* do not become seriously ill. Anyone can get meningococcal disease, but it is more common in children and young adults. Compared to other persons their age, college freshmen, especially those who live in dormitories, are at modestly increased risk for meningococcal disease.

How is the bacteria that causes meningococcal disease spread?

The meningococcus bacterium is spread by direct, close contact with respiratory and oral secretions (saliva, sputum or nasal mucus) of an infected person. Close contacts include household members, day care center contacts and anyone directly exposed to the patient's oral or nasal secretions. Many people carry this bacterium in their nose and throat without any signs of illness, while others may develop serious symptoms.

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When and for how long is an infected person able to spread the disease?

A person may transmit the disease from the time he/she is first infected until the bacteria are no longer present in discharges from the nose and throat. The duration varies according to treatment used. Patients should be excluded from school, daycare or the work place until at least 24 hours after therapy was begun and the illness has subsided.

What is the treatment for meningococcal disease?

Penicillin is the drug of choice for meningococcal disease, while third generation cephalosporins are reasonable alternatives.

Should people who have been in contact with a person with a diagnosed case of meningococcal disease be treated?

Only people who have been in close contact need to be considered for preventive treatment. Close contacts include household members, intimate contacts (i.e. kissing), persons performing mouth to mouth resuscitation or endotracheal intubation, day care center contacts, or anyone directly exposed to the patient's oral or nasal secretions. Such people are usually advised to take preventive antibiotics, such as rifampin, ciprofloxacin or ceftriaxone. Casual contact that might occur in a regular classroom, office or factory setting is not usually significant enough to cause concern. Close contacts (family, daycare, nursery school, etc.) should be alerted to watch for early signs of illness, especially fever, and seek treatment promptly.

Is there a vaccine to prevent meningococcal disease?

Presently, there is a vaccine that will protect against four of the serogroups of meningococcus. It is recommended in some outbreak situations or for travel to areas of the world where high rates of the disease are known to occur. College freshman should consider receiving the vaccine to decrease their risk of acquiring the disease.